APPENDIX A. SUPPLY CLASS VIII SUSTAINMENT REQUIREMENTS PROCESS

A-1. This Appendix provides the algorithm used to develop SC VIII Sustainment Stock requirements.

A-2. Process:

a. The USAMMA uses two models to develop SC VIII sustainment requirements for war reserve and Logistics Plans (LOGPLAN).

(1) The first is a classified personal computer-based system known as Resupply by Unit Type (ReBUT). It is a front-end system that computes the quantity of SKOs needed to support the warfight over a given period of time.

(2) The second unclassified model is called Medical Requirements and Capabilities Assessment Program (MRCAP). MRCAP takes the output from ReBUT and develops the NSN-level requirements from the number of sets and the components of the set.

b. The basic requirements formula is:

(# sets required) X (SKO Turnover) X (intensity Rate) X (Component Allowance) X (Consumption Percent) = Requirement

c. The ReBUT Model

(1) Assumptions:

- The Required Delivery Date (RDD) is the valid day consumption begins.
- The MTOE is accurate.
- The unit deploys with its basic load of medical supplies.
- The SKOs authorized to a unit represents the types of supplies the unit will need to perform its military mission.
- Each SKO is designed to last a particular number of days. Usually this number is found in the supply catalog for that SKO.
- Intensity rate is the way to influence requirements based upon a ratio of actual vs. set design.

(2) Model input: A time-phased force list containing at least the UIC and RDD.

(3) Model process:
The ReBUT model performs 3 functions.

(a) The ReBUT builds part of the requirement record by taking the time-phased force list (UIC, personnel strength, and RDD), and matches the UIC on the force list to the UIC in the authorization file. The authorization file is an extract of the Logistics Integrated Database (LIDB) or WEB Theater Authorization and Documentation System (WEB TAADS). ReBUT then builds a separate record for each line item number (LIN) authorized to that UIC. The LIN, required quantity, authorized quantity, and on-hand quantity are written to each record.

(b) The ReBUT computes a resupply start date (RSD) for each set as the RDD plus the number of days of supply contained in the SKO.

(c) The ReBUT computes the number of times each set turns over for a given period. For war reserves, FPD computes in 30-day periods. For LOGPLANs, FPD computes in 10-day periods.

Example:

Unit has an RDD of 10 and the computation is for an Aidsman Bag (LIN U65480) that has five (5) days of supply.

RDD + DOS in set = Resupply Start Date (RSD)
10+5=15

This example computes for the first 30-day period.

$\frac{\text{Last Day in period - RSD}}{\text{Days in set}}$	=	Number of SKO turns
$\frac{30 - 15}{5} = \frac{15}{5} =$		3

The final step is to multiply the number of SKO turns times the intensity rate for that period. Each 30-day period can have a different rate. For example, if the intensity rate is 71%, the final calculation would be:

(# of SKO turns)	X	(Intensity Rate)	=	Adjusted SKOs
3	X	.71	=	2.13

This means that we need to replace the consumable items within the set 2.13 times in this 30-day period. Remember, we only require 15 days of supply since the unit arrives on day 10 and has 5 days of basic load with it.

If more than one of the set is authorized, i.e., if the MTOE calls for 10 of these sets, then each of the 10 sets would turn over 2.13 times for a total of 21.3 sets worth of consumable items.

Authorized Qty	X	Adjusted SKO Turnover	=	# Sets
10	X	2.13	=	21.3

(d) Model output: The adjusted quantity of each SKO by period is the number of times the components in the set will have to be replaced or turned over.

d. The MRCAP model

(1) Assumptions: Consumption percentage reflects the "consumability" of components within a SKO. For example, a "one-time use" item such as a pressure bandage would be assigned a consumption percentage of 100%. A durable item such as a scalpel, however, would be used multiple times and therefore would be assigned a consumption percentage of less than 100%.

(2) Model input: Adjusted SKO turnover quantity by period from REBUT.

(3) Model Process: The quantity of each NSN required is a result of multiplying the adjusted SKO turnover times the allowance of each component times the consumption percent Consumable/Durable Code (CONDUR Code) for that NSN.

Set Turnover	Component NSN	Nomen	Component Allowance	X	Consumption Percent / CONDUR Code	=	NSN Rqmt
2.13	6505 01 153 3015	Tetracaine	1	X	100	=	2
	6505 01 177 1982	Clindamycine	40	X	100	=	85
	6505 00 344 7800	Handle Surg	1	X	10	=	0
							(2 rounds down)

(4) Model output: The quantity of each NSN required.

A-3. In addition, the USAMMA computes war reserve requirements for individual NSNs that are not part of SKOs. It is done outside of these models. These separate requirements are based upon items that the COCOM or OTSG nominates and the formula provided by the requesting activity or CTA 8-100 items such as chapstick, litters etc. Generally these items are computed based on population-at-risk times the treatment protocol for that item.